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EXAMINER	
VAN DOREN, BETH	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/427,149	WARD, RICHARD E.	
	Examiner	Art Unit	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-30,32-41 and 43-83* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-30,32-41 and 43-83* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/27/04 has been entered.

2. Applicant's submission of 02/27/04 amended claims 1, 3, 11, 12, 15, 26, 27, 28, 30, 32-34, 40, 41, 43, 51, 52, 54-56, 62, 63, 68-71, and 74. Claims 78-83 were added. Claims 2, 31, and 42 were canceled. Therefore, claims 1, 3-30, 32-41, and 43-83 were pending and were subject to the restriction requirement made on 06/03/2004.

The following is a non-final office action in response to communications received on 07/23/2004, in which Applicant elected Group I. Claims 26-28 and 40 are amended. Claims 1, 3-30, 32-41, and 43-83 are now pending.

Claim Objections

3. Claim 11 is objected to because it is dependent on a claim 12, claim 12 succeeding claim 11. This is improper. For examination purposes, claim 11 has been construed as dependent on claim 1. Clarification is required.

4. Claim 82 is objected to because it is an apparatus claim that is dependant on method claim 78. For examination purposes, claim 82 has been construed as dependent on claim 81. Clarification is required.

5. Claim 83 is objected to because it is a duplicate to claim 80. Clarification is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 4-8, 11-13, 15, 17, 21-30, 32-39, 41, 43-48, 51-53, 55, 61-68, 71-78, 80, 81, and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by Macrae et al. (U.S. 5,826,237).

8. As per claim 1, Macrae et al. teaches a method for generating a service plan and associated work flow for a customer using a computer based system comprising the steps of:

creating the service plan, the service plan including a plurality of structured sentences for each of a plurality of specific needs of a particular customer in an electronic storage area, wherein the plurality of structured sentences together form a part of the service plan, said plurality of structured sentences including structured sentences for services, each structured sentence for service identifying a needed service corresponding to one of the specific customer needs (See Figures 2, 12, and 43. See also column 2, lines 20-30 and 59-67, column 6, lines 5-16, column 7, lines 1-6 and 29-35, column 8, lines 50-60, column 9, lines 55-70, column 10, lines 1-10, column 17, lines 24-30, column 18, lines 20-25, which discloses creating a service plan template that is made up of structured sentence elements. For example, an order node sentence element in the plan defines a subject of the order and specific activities and results that must be achieved when this element is encountered in the plan. This service plan with sentence elements is assigned and customized to a specific patient); and

creating the electronic workflow in addition to the service plan, which is adapted to assist completion of each needed service, the step of creating the electronic workflow including the step of using each structured sentence for service to create a workflow process instance for each needed service (See at least column 6, lines 5-16 and 45-60, column 7, lines 16-19, 29-35, and 56-62, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40, which teaches the steps of creating a workflow in addition to the saved service plan template. Specifically, the workflow is created when a saved template is applied to a specific patient and run. For example, when the order node sentence element is encountered in the flow, a technician or lab person must complete the order (creating a workflow instance of the general sentence) and enter results so the workflow can proceed).

9. As per claim 3, Macrae et al. discloses wherein said plurality of structured sentences have a subject and a plurality of attributes contained therein (See column 7, lines 33-37).

10. As per claim 4, Macrae et al. further discloses a method wherein certain of the attributes associated with the structured sentences for services contain a selected attribute value chosen from among a group of possible attribute values (See column 7, lines 33-37 and column 10, lines 6-9, wherein the selected service is a strep test, an attribute of a lab test, costing $40).

11. As per claim 5, Macrae et al. further discloses a method wherein certain ones of said workflow process instances have at least one decision step, task firing condition, or routing rules that creates a plurality of possible sequences of tasks that are invoked as part of the execution of said workflow process instances (See, for example, Figure 2 which discloses a simplified template for work flow dealing with step throat. The result of the step test directs the continuation of the workflow along a predetermined branch, which will encounter another order

node with similar capabilities. See column 13, lines 26-30, in which Macrae et al. discloses flow control nodes, which are coupled with order nodes and contain a set of routing rules).

12. As per claim 6, Macrae et al. discloses a method further including the step of modifying at least one of the structured sentence attributes, which modification also causes a change to the sequence of tasks invoked within at least one of the workflow instances (See column 7, lines 55-67, column 8, lines 1-3, and column 11, lines 15-33, and column 22, lines 50-67, wherein an attribute value is changed regarding the structured sentence after the merging of more structured sentences to the plan. This editing affects the workflow when implemented).

13. As per claim 7, Macrae et al. further discloses a method wherein selecting a different one of the possible attributes from among the group of possible attributes will result in the selection of a different one of the plurality of possible routes with respect to an associated decision step, task firing condition or routing rule (See column 32, lines 39-44, which explains the rule object node interfaces that governs the workflow. The decision made about the selection of an attribute contained in an order node determines the route followed in the workflow path).

14. As per claim 8, Macrae et al. teaches a method further including the step of electronically inputting answers to questions, and wherein the electronically input answers to questions also causes a change to the sequence of tasks invoked within the at least one of the workflow process instances (See figures 2 and 6, and column 2, lines 38-43, column 7, lines 43-50, and column 8, lines 5-22, which disclose inputting the answer to the question "strep?" based on the lab results, this result changing the sequence of tasks invoked in the workflow instances).

15. As per claim 11, Macrae et al. further discloses a method wherein certain ones of said workflow process instances have at least one decision step, task firing condition, or routing rule

that creates a plurality of possible routes contained therein, and further including the step of creating a part of workflow relevant data, which modification also causes a change to the sequence of tasks invoked within at least one of the workflow process instances (See column 21, lines 8-12 and 18-21, which disclose modifying the process instance by adding a node, deleting a node, or modifying the contents of an existing node. Since these nodes dictate the flow of the predefined service plan, their modification will cause changes in said flow).

16. As per claim 12, Macrae et al. further discloses a method wherein certain ones of said plurality of workflow process instances have workflow relevant data contained therein (See column 7, lines 29-36, wherein Macrae et al. discuss the order items contained in the process instance of order nodes. Order item data may include attributes such as category, name, etc.).

17. As per claim 13, Macrae et al. teaches a method further including the step of electronically inputting answers to questions, and wherein the electronically input answers to questions are used to create or modify workflow relevant data for certain ones of the workflow process instances (See figures 2 and 6, and column 2, lines 38-43, column 7, lines 43-50, and column 8, lines 5-22, which disclose inputting the answer to the question "strep?" based on the lab results. The lab results are entered into the tool, this creating workflow relevant data for certain ones of the workflow process instances).

18. As per claim 15, Macrae et al. further discloses a method wherein the service plan is a care plan, the customer is a patient, and the plurality of specific customer needs are health related problems to be addressed as part of the patient's care (See at least column 7, lines 16-19, and column 8, lines 4-22, which disclose a medical treatment template and provides a specific Clinical Template example).

19. As per claim 17, Macrae et al. discloses creating an alert that will signify that an action need to be taken (See at least figure 2 and 43, column 6, lines 5-22 and 45-65, column 7, lines 20-37, column 8, lines 5-25, and column 10, lines 35-60, wherein the nodes of the system signal that an action needs to be taken).

20. As per claim 21, Macrae et al. discloses a method further including the step of creating other structured sentences, said other structured sentences including structured sentences for a goal, a fact, a protocol, and a finding (See column 8, lines 23-29, column 13, lines 29-31, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40, which discloses creating structured sentences for the needs of patient. If a structured sentence is not previously stored, the user can build a new sentence or merge sentences, these sentences having an objective, etc.).

21. As per claim 22, Macrae et al. discloses a method further including the step of initiating the workflow (See column 17, lines 27-29, which discusses assigning a workflow template to a specific patient and executing said workflow).

22. As per claim 23, Macrae et al. further discloses a method including updating status information for the service plan as workflow progresses (See at least column 7, lines 54-67, column 8, lines 1-3, and column 22, lines 28-44, which discusses another service plan being invoked as well as modifying and storing a service plan).

23. As per claim 24, Macrae et al. further discloses a method wherein updates are provided to a user of the service plan in one form and updates are provided to the customer in another form (See Figures 14 and 15 and column 10, lines 37-51, which discloses displaying updates to the user of the tool (such as a doctor), which is a summarized list of the status of the orders of the

workflow. See also figure 41 and column 21, lines 44-67 and column 22, lines 1-21, which disclose translating and exporting the information of the workflow).

24. As per claim 25, Macrae et al. further discloses a method wherein the one form is directed to a clinician and the other form is directed to a nonmedical person (See column 22, lines 45-50, and column 25, lines 47-51, which explains the user interacting with the workflow updates during the merge process. In the merge example in column 22, lines 56-67, the user receiving the merge updates is Mr. Sander's doctor).

25. As per claim 26, Macrae et al. discloses a method wherein:

the steps of creating are repeated to result in a plurality of existing service plans corresponding to a respective plurality of customers, each of said service plans including a plurality of structured sentences for each of a plurality of specific needs of a particular customer, each of said plurality of existing service plans stored in an electronic storage area, said plurality of structured sentences in each of said exiting service plans including structured sentences for services, each structured sentence for service in each of said existing service plans identifying a needed service corresponding to one of the specific needs of a particular customer, and an electronic workflow capable of assisting completion of each needed service (See Figures 2 and 12. See also column 2, lines 36-45 and 59-67, column 6, lines 5-16 and 45-60, column 7, lines 1-6 and 29-35, column 8, lines 50-60, column 9, lines 55-70, column 10, lines 1-10, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40);

identifying one or more needed services in addition to those services specified in the existing service plans (See column 7, lines 54-67, and column 8, lines 1-3, which discloses

creating new care plans as well as retrieving existing care plans, modifying these plans to address an unmet need);

identifying certain of the plurality of customers in need of one or more identified services (See at least column 7, lines 54-67, column 8, lines 1-3, and column 17, lines 23-25, wherein a certain patient is in need of the identified service);

adding new structured sentences for service that are common to the plurality of existing service plans for the selected plurality of customers to obtain a corresponding plurality of revised service plans (See column 7, lines 54-67, and column 8, lines 1-3, which discloses creating and saving brand new care plans as well as retrieving existing care plans. The retrieved care plan can be modified and saved to the template library. See column 21, lines 8-11, which discusses adding new order structured nodes to a generic care plan to create a new, specific care plan);

Adding workflow process instances corresponding to the new structured sentences for service to the existing electronic workflow for each of the selected plurality of customers to obtain a revised electronic workflow for each of the selected plurality of customers (See at least column 6, lines 5-16 and 45-60, column 7, lines 1-6 and 29-35, column 8, lines 50-60, column 9, lines 55-70, column 10, lines 1-10, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40);

Causing initiation of the revised workflow for each revised service plan (See column 17, lines 24-29, which discloses tailored workflows being assigned to patients and executed).

26. As per claim 27, Macrae et al. discloses wherein said plurality of structured sentences have a subject and a plurality of attributes contained therein and wherein the step of adding new structured sentences includes the step of determining values for certain of said plurality of

attributes for said new structured sentences based upon a characteristic that is common to each of said respective certain plurality of customers (See column 8, lines 23-29, in which Macrae et al. teaches using a generic treatment template to create a clinic template that can be used to treat all patients that are experiencing a sore throat).

27. As per claim 28, Macrae et al. discloses wherein the step of adding new structured sentences includes the step of determining value for other ones of said plurality of attributes for said new structured sentences based upon another characteristic that is not common for each of said respective certain plurality of customers (See column 21, lines 8-11, which discusses further customizing templates based on differing needs of customers).

28. As per claim 29, Macrae et al. disclose wherein the step of adding new structured sentences further includes the step of modifying certain existing structured sentences that are common to the predetermined plurality of existing service plans based upon the data (See column 19, lines 29-40, which discusses manually executing a plan so that the flow proceeds down a branch of the plan regardless of the determined data and forcing it to consider the other data's route); and wherein the step of adding workflow instances includes the step of revising workflow instances associated with the modified certain existing structured sentences (See column 22, lines 59-67, which explains the idea of a merge. Merging order structured nodes into the plan can be occur at any point during the original plan's execution).

29. As per claim 30, Macrae et al. discloses a method for creating a service plan and associated workflow for a particular customer using a computer based system comprising:

providing electronically:

a plurality of structured sentence data items for each of a plurality of possible customer needs in an electronic storage area, said plurality of structured sentence data items including structured sentence data items for services, each structured sentence item for service identifying a needed service corresponding to one of the possible customer needs (See at least figures 12, 14, and 15 and column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10, wherein data items that are related to structured sentences are stored. Subjects and attributes are shown, such as vitals (subject) and temperature (attribute) or pulse (subject) and value (attribute));

a generic electronic workflow process specification, in addition to the plurality of structured sentence data items, that is adapted to assist completion of each needed service (See at least column 6, lines 5-16 and 45-60, column 7, lines 16-19, 29-35, and 56-62, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40, which discloses a detailed description of the flow of activities in the task from start to finish, including the data records, programs, and procedures involved with a particular task);

at least first and second templates, each of said at least first and second templates comprising a different set of certain ones of said plurality of structured sentence data items, different ones of said plurality of structured sentence data items relating to different possible customer needs and including a subject and at least one attribute (See at least figure 42, column 2, lines 36-45 and 59-67, column 6, lines 5-16 and 45-60, column 7, lines 1-6, 29-35, and 56-67, column 8, lines 1-22 and 50-60, column 9, lines 55-70, column 10, lines 1-10, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40, wherein each template has a different combination of sentences to meet needs of the patient);

selecting at least a first template that relates to an identified customer need (See column 7, lines 63-67, and column 8, lines 1-3, which discuss selecting a template that coincides with a treatment needed for a patient);

creating the service plan for the particular customer, the step of creating the service plan including the step of selecting structured sentence data items within the first template that relate to specific need of the particular customer to obtain the service plan for the particular customer with structured sentences therein corresponding to the selected structured sentence data items, the structured sentences in the service plan being in addition to the selected structured sentence data items, and wherein the step of selecting structured sentence data items also causing the selection of workflow instances includes the step of determining a value for the at least one attribute for each of the selected structured sentences in the service plan for the particular customer (See column 6, lines 5-16 and 45-60, column 7, lines 16-19, 29-35, and 56-62, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40); and

creating the workflow in addition to the service plan using the generic workflow specification and the service plan, the workflow being adapted to assist completion of each needed service, wherein the step of creating the workflow includes the step of using each structured sentence for service to create a workflow process instance for each needed service (See again column 7, lines 63-67, and column 8, lines 1-3, which discuss selecting the parts of a similar, existing template and modifying the template to suit the current need. When selecting the nodes in the workflow that are applicable to the situation, the user is also selecting the structure sentence data items contained therein).

30. As per claim 32, Macrae et al. further discloses a method wherein the attribute values for certain ones of said plurality of attributes is selectable from a collection of mutually exclusive choices (See again column 8, lines 11-22, wherein the value of the attribute strep test can only come back positive or negative).

31. As per claim 33, Macrae et al. further discloses a method wherein the attribute for certain ones of said plurality of attribute is a date (See column 14, lines 51-54, discussing the implementation of ongoing order structured nodes. See column 14, lines 63-67, and column 15, line 1, which discloses that the ongoing order has attributes such as start date or repetition date).

32. As per claim 34, Macrae et al. further discloses a method wherein the attribute for certain ones of said plurality of attributes is a dosage (See column 14, lines 51-54, and column 15, lines 9-15, which discloses an ongoing order node and indicating medication to be given with a care plan at a specified speed and dosage).

33. As per claim 35, Macrae et al. further discloses a method wherein the service plan is a care plan, the customer is a patient, the plurality of possible customer needs are health related problems, and the specific need of the particular customer is a health related problem of the particular customer (See column 7, lines 16-19, and column 8, lines 4-22, which discloses a workflow care plan in the form of a medical treatment and provides a specific Clinical Template example, teaching a simple workflow for treating a patient with a sore throat).

34. As per claim 36, Macrae et al. discloses a method further including the step of initiating the workflow, the step of initiating the workflow being caused by a user verifying the accuracy of the service plan (See column 17, lines 24-29, wherein a template is assigned to a patient and

executed. At the time of assignment, the plan of the template may have already been tailored to meet the needs of the patient, or modification can occur before or during execution).

35. As per claim 37, Macrae et al. further discloses a method wherein during the step of providing a plurality of structured sentence data items is accomplished by a generic metadata supplier that transmits the data to a service provider user, and the service provider user performs the steps of selecting (See column 7, lines 34-35 and 63-67, and column 8, lines 1-3 and 24-29, which discusses libraries containing generic order node items and generic templates, which are accessed by the user and modified to meet the specific needs of said user and his/her patient).

36. As per claim 38, Macrae et al. discloses a method further including the step of the service provider adding structured sentence data items to the plurality of structured sentence data items previously provide by the generic metadata supplier (See column 21, lines 8-12, which discloses a user modifying a generic service plan template by adding order structured nodes that contain attributes to the user's treatment needs).

37. As per claim 39, Macrae et al. discloses a method further including the step of the service provider modifying certain ones of the selected structured sentence data items from the structured sentence data items previously provided by a generic metadata supplier (See at least column 21, lines 8-12, which discloses a user modifying a generic service plan template by adding, deleting, or modifying order nodes that contain attributes to the user's treatment needs).

38. Claims 41, 43-48, 51-53, 55, 61-65, 67, and 68 recite equivalent limitations to claims 1, 3-8, 11-13, 15, 21-25, 23, and 30, respectively, and are therefore rejected using the same art and rationale as applied in the rejection of claims 1, 3-8, 11-13, 15, 21-25, 23, and 30, respectively.

39. As per claim 66, Macrae et al. teaches a method wherein the step of updating the status information for the service plan includes modifying an attribute contained in one of the structured sentences (See column 11, lines 15-33, and column 22, lines 50-67, wherein an attribute value is changed regarding the structured sentence to clarify based on the merging of more structured sentences to the plan).

40. As per claim 71, Macrae et al. teaches a method wherein the step of selecting the those structured sentence data items includes the steps of: visually displaying certain ones of the structured sentence data items on a screen of a display (See at least figures 2 and 12, which shows structured sentence data items. The user can build a structured sentence using these structured sentence data items); and creating one structured sentence corresponding to the specific need of the particular customer by selecting one of the displayed certain ones of the structured sentence data items (See Figures 2 and 12. See also column 2, lines 36-45 and 59-67, column 6, lines 5-16 and 45-60, column 7, lines 1-6 and 29-35, column 8, lines 50-60, column 9, lines 55-70, column 10, lines 1-10, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40, which discloses creating a structured sentence that encompass the needs of a patient. The structured sentence and sentence data item are formed and customized in the display window).

41. As per claim 72, Macrae et al. discloses a method wherein the certain ones of the structured sentence data items displayed on the screen resemble a substantially grammatically correct phrase (See figure 2, which displays the substantially grammatically correct phrase "Strep?" on the screen).

42. As per claim 73, Macrae et al. teaches a method wherein: the step of visually displaying includes the step of visually displaying attributes of one of the certain ones of the structured sentence data items (See at least figures 2, 12, 15, 26, 35, 39, and 41, column 7, lines 29-42, and column 13, lines 25-35, wherein the attributes of certain ones of the structures sentence data items are displayed, and when implemented as a workflow, can be assigned values);

and the step of creating the one structured sentence corresponding to the specific need of the particular customer includes selecting a selected value obtained from one of the attributes (See column 7, lines 33-37, which describe the subject and attributes contained in the structured order nodes of the workflow. A determination concerning the value of an attribute contained in a structured order node is made, for example see column 8, lines 11-22, wherein the attribute strep test is determined to have a positive or negative value, and the route taken in the plan is based on these values when the plan is implemented as a workflow).

43. As per claim 74, Macrae et al. discloses a method wherein the step of creating further includes creating one workflow instance that corresponds to the one structured sentence (See column 7, lines 16-19, 29-35, and 56-62, in which Macrae et al. teaches the steps of implementing the workflow. A chart view shows the status of the running created workflow. When an order node is hit, a technician or lab person must run the physical order workflow instance and enter information into the system so the workflow can proceed. Each instance in the workflow process is represented by a node and each order node represents a needed service and has associated attributes).

44. As per claim 75, Macrae et al. teaches a method further including the step of displaying the one structured sentence on the screen of the display after the step of creating the one

structured sentence corresponding to the specific need of the particular customer (See at least figure 3, wherein the one structured sentence is displayed after creating the structured sentence in association with a specific patient, for example John Sanders).

45. As per claim 76, Macrae et al. discloses a method wherein the one structured sentence displayed on the screen resembles a substantially grammatically correct phrase (See figure 2, which displays the substantially grammatically correct phrase "Strep?" on the screen).

46. As per claim 77, Macrae et al. discloses a method wherein the one structured sentence displayed on the screen contains information obtained from a subject of the selected one of the displayed certain ones of the structured sentence data items and a selected value corresponding to an attribute associated with the selected one of the displayed certain ones of the structured sentence data items (See at least figures 2 and 12, column 7, lines 29-42, and column 13, lines 25-35, wherein a structured sentence is displayed on the screen composed of structured sentence data items. Information is obtained from the subject and attribute value and used for branching).

47. As per claim 78, Macrae et al. teaches wherein the step of obtaining includes the steps of:

creating a structured sentence in the service plan for each structured sentence data item that was selected from the template (See at least figures 12, 14, and 15 and column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10), wherein the step of creating the structured sentence involves the steps of:

creating a structured sentence subject based on the subject in the corresponding structured sentence data item; creating a plurality of structured sentence attributes based on the plurality of attributes in the corresponding structured sentence data item (See at least figures 12, 14, and 15

and column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10, wherein a subject attributes are created); and

setting structured sentence attribute values based on default attribute values specified in the corresponding attribute of the corresponding structured sentence data item (See at least figures 20-22, and column 13, lines 35-65, wherein values are specified and defaults defined).

48. As per claim 80, Macrae et al. teaches a method wherein the step of using each structured sentence for service to create the workflow process instance include the steps of:

matching the structured sentence to a corresponding workflow process specification (See figures 14-15, column 6, lines 5-16 and 45-60, column 7, lines 16-19, 29-35, and 56-62, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40);

creating a new workflow process instance (See again column 7, lines 63-67, and column 8, lines 1-3, which discuss selecting the parts of a similar, existing template and modifying the template to suit the current need. When selecting the nodes in the workflow that are applicable to the situation, the user is also selecting the structure sentence data items contained therein);

setting values of workflow relevant data associated with the workflow process instance based on the structured sentence attribute and structured sentence attribute sentence attribute values in the structured sentence for service (See at least figures 20-22 and 33. See also at least column 6, lines 5-16 and 45-60, column 7, lines 16-19, 29-35, and 56-62, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40);

configuring the workflow process instance so that, once the workflow process instance is initiated, the system will execute the workflow process instance using information regarding tasks, routes, decision steps, tasks firing conditions and routing rules that are defined in the

corresponding workflow process specification (See at least figures 20-22 and 33. See also at least column 6, lines 5-16 and 45-60, column 7, lines 16-19, 29-35, and 56-62, column 17, lines 24-30, column 18, lines 20-25, column 21, lines 8-12, and column 22, lines 30-40, wherein when the workflow instance is initiated, the system uses the tasks, routes, decision steps, tasks firing conditions and routing rules defined in the workflow process specification).

49. Claims 81 and 83 recite equivalent limitations to claims 78 and 80, respectively, and are therefore rejected using the same art and rational as applied in the rejection of claims 78 and 80, respectively.

Claim Rejections - 35 USC § 103

50. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

51. Claims 9-10, 18-20, 40, 49-50, and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae et al. (U.S. 5,826,237) in view of Brown (U.S. 6,161,095).

52. As per claims 9 and 10, teaches a method further including the step of electronically inputting answers to questions, and wherein the electronically input answers to questions also causes a change to the sequence of tasks invoked within the at least one of the workflow process instances (See figures 2 and 6, and column 2, lines 38-43, column 7, lines 43-50, and column 8, lines 5-22, which disclose inputting the answer to the question "strep?" based on the lab results, this result changing the sequence of tasks invoked in the workflow instances). However, Macrae et al. does not expressly disclose that the answers to the question of the workflow process are, as

per claim 9, entered by the customer or, as per claim 10, remotely input by the customer and transmitted via the internet. Brown discloses:

i. As per claim 9, the answers to questions being input by the customer (See figures 2, 3, 6, and 9, and column 3, lines 35-42 and 59-67, wherein the patient enters information into the interface of the computer and this data is sent to the computer of the doctor/clinic).

ii. As per claim 10, the answers to questions being remotely input by the customer and transmitted via the internet (See figures 2, 3, 6, and 9, and column 3, lines 35-42 and 59-67, and column 10, lines 47-50, wherein the patient enters information into the interface of the computer and this data is sent to the computer of the doctor/clinic via a communications network).

Both Macrae et al. and Brown disclose computer implemented patient care tools wherein data entered about the patient causes the workflow/medical plan to enact the appropriate workflow/medical plan instances. Furthermore, Macrae et al. discloses using its tool to medicate a patient during a treatment plan (See column 14, lines 51-67, and column 15, lines 1-5 and 19-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have the customer (patient) input answers to questions into the tool of the clinic/doctor, both locally and remotely, in order to increase the accuracy of the tool by allowing it to extract the exact data it needs as well as increase the user friendliness of the tool by allowing the patient to have access to medical information at a remote location.

53. As per claims 18, 19, and 20, Macrae et al. discloses a method of generating a service plan further including the step of automatically generating a translation of the service plan and exporting the patient plan data to other applications (See Figures 14 and 15 and column 10, lines 37-51, wherein Macrae et al. teaches displaying the result node content, which is a summarized

list of the status of the orders of the workflow. See also figure 41 and column 21, lines 44-67 and column 22, lines 1-27, which disclose translating the information of the workflow into a more readable sheet and exporting this information to an outside application). However, Macrae et al. does not expressly disclose, as per claim 18, transmitting the translation of the service plan to the customer or, as per claim 19, revising the translation prior to the transmitting, or, as per claim 20, transmitting the translation to a remote computer.

Brown discloses a method further including the steps of:

i. As per claim 18, transmitting a translation of the service plan to the customer (See figures 2, 3, and 9, and column 4, lines 43-51, wherein the treatment regimen is transmitted from the doctor to the patient via the network).

ii. As per claim 19, revising a translation prior to the transmitting (See column 5, lines 61-67, which discusses editing the treatment plan at the service device and then transmitting the new plan to the patient device).

iii. As per claim 20, transmitting to a remote customer computer (See figures 2, 3, and 9, and column 3, lines 35-42 and 59-67, column 5, lines 1-3, column 6, lines 29-43, and column 10, lines 47-50, wherein the data is sent to the computer of the customer via a communications network).

Both Macrae et al. and Brown disclose computer implemented patient care tools wherein data entered about the patient causes the workflow/medical plan to enact the appropriate workflow/medical plan instances. Furthermore, Macrae et al. discloses using its tool to medicate a patient during a treatment plan (See column 14, lines 51-67, and column 15, lines 1-5 and 19-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to

transmit the translated workflow information to the customer (patient), both locally and remotely, in order to increase the customer friendliness and the flexibility of the tool by allowing the patient to have access to their medical information in an comprehendible and understandable format at both local and remote locations.

54. As per claim 40, Macrae et al. discloses a method of automatically generating the data needed to inform the process of updating metadata, including structured sentence data items and associated generic workflow process specifications that are adapted for the creation and execution of service plans for nonparticular customers, said plurality of structured sentence data items including structured sentence data items for services, each structured sentence data item for service identifying a possible needed service corresponding to possible customer needs, said associated workflow process specification capable of assisting completion of each needed service (See Figure 12. See also column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10. Macrae et al. discloses a library containing hierarchical folders. For example, if the service of strep throat culture is needed by a customer, the Labs category would be opened, which contains different types of labs and their different services). However, Macrae et al. does not expressly disclose including alerts that occur to signify that an action needs to be taken.

Brown discloses a method that includes alerts that occur to signify that an action needs to be taken, the method comprising the steps of:

obtaining dismissed alerts associated with existing service plans that include correspondence of certain ones of said structured sentences, said dismissed alerts being designated as one of an appropriate alert and an inappropriate alert (See figures 2, 4, 5, and 10,

and column 13, lines 1-11, 24-28, and 4-49, which discuss obtaining information about dismissed alerts to take medication as prescribed);

grouping related inappropriate alerts (See figures 2, 4, 5, and 10, and column 13, lines 1-11, 24-28, and 4-49, and column 15, lines 10-15, and column 16, lines 28-39 and 40-50, which discusses grouping and analyzing the inappropriately dismissed alerts); and

determining revised generic workflow process specifications based upon the grouping of inappropriate alerts (See figures 2, 4, 5, and 10, and column 13, lines 1-11, 24-28, and 4-49, and column 15, lines 10-15, and column 16, lines 28-39 and 40-65, wherein the workflow and the plan is edited based on the missed alerts and doses).

Both Macrae et al. and Brown disclose computer implemented patient care tools wherein data entered about the patient causes the workflow/medical plan to enact the appropriate workflow/medical plan instances. Furthermore, Macrae et al. discloses using its tool to medicate a patient during a treatment plan (See column 14, lines 51-67, and column 15, lines 1-5 and 19-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention to equip the electronic workflow of Macrae et al. with an alert system in order to increase the effectiveness of the medical tool by reminding the patient of the appropriate actions that need to be taken to comply with the medical plan and, based on the compliance or noncompliance of the patient, tailoring the procedure to better meet the needs of the patient.

55. Claims 49-50 and 57-60 recite equivalent limitations to claims 9-10 and 17-20, respectively, and are therefore rejected using the same art and rationale as applied in the rejection of claims 9-10 and 17-20, respectively.

56. Claims 14, 16, 54, 56, 69, 70, 79, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae et al. (U.S. 5,826,237).

57. As per claim 14, Macrae et al. further discloses a method wherein the step of executing a workflow process instance includes the step of invoking and executing preexisting query data items, thereby causing workflow relevant data to be created or modified, said data items containing metadata that maps the response options in a question or structured sentence item to the decision step, thereby creating a single data value used in a decision step, task firing condition or routing rule as part of the execution of said workflow process instance as well as metadata that defines how the workflow instances map to the test results (See figures 2 and 6, and column 2, lines 38-43, column 7, lines 43-50, and column 8, lines 5-22, which disclose inputting the answer to the query "strep?" based on the lab results. The results are considered workflow relevant data for workflow process instances. See Figure 2 which discloses the workflow dealing with step throat. The workflow data directs the continuation of the workflow based on a decision step/routing rule. See column 13, lines 26-30, which discloses routing rules). However, Macrae et al. does not expressly disclose that this relevant workflow data maps to all places in the workflow to which it applies.

Macrae et al. teaches the generation of workflow relevant data based on occurrences like test results or the taking of vital statistics. It would have been obvious to one of ordinary skill in the art at the time of the invention to map the relevant workflow data to all places in the workflow that it applies in order to increase the consistency of the data as well as the efficiency of process by obtaining one accurate set of data and then applying it throughout the workflow.

58. As per claim 16, Macrae et al. further discloses a method wherein an interdisciplinary team of clinicians create the generic healthcare plans applicable to the patients and the step of creating the plurality of structured sentences that represents steps of a generic healthcare plan template (See column 1, lines 13-20, which discusses the generic healthcare plans being created by physicians, clinicians, committee members, and an interdisciplinary team. See column 7, lines 17-20, 29-37, and 53-65, which discusses the building of structured sentence models that represent steps of generic healthcare plan templates). However, Macae et al. does not expressly disclose the interdisciplinary team of clinicians creating the plurality of structured sentences.

It is old and well known that interdisciplinary teams of clinicians, physicians, and committee members create the acceptable medical procedures that are used by the medical community. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the interdisciplinary team of clinicians, physicians, and committee members of Macrae et al. build the structured sentences in order to create the most accurate and effective structured sentence protocols for the tool so that patients treated using said tool get the best medical attention.

59. As per claim 69, Macrae et al. further discloses a method wherein an interdisciplinary team of clinicians create the generic healthcare plans applicable to the patients or the step of creating the plurality of structured sentences that represents steps of a generic healthcare plan template (See column 1, lines 13-20, which discusses the generic healthcare plans being created by physicians, clinicians, committee members, and an interdisciplinary team. See column 7, lines 17-20, 29-37, and 53-65, which discusses the building of structured sentence models that represent steps of generic healthcare plan templates). However, Macae et al. does not expressly

disclose the interdisciplinary team of clinicians creating the plurality of structured sentences or that this team reviews drafts of the structured sentences after they are created.

It is old and well known that interdisciplinary teams of clinicians, physicians, and committee members create the acceptable medical procedures that are used by the medical community. It is also old and well known that hospitals in America have overseeing boards that manage the doctors of the medical facility. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the interdisciplinary team of clinicians, physicians, and committee members of Macrae et al. build and review the structured sentences in order to create the most accurate and effective structured sentence protocols for the tool so that patients treated using said tool get the best medical attention.

60. As per claim 79, Macrae et al. teaches a method further comprising the step of:

changing the structured sentence attribute value for at least one attribute for at least one structured sentence in the service plan from the default attribute value to a selected attribute value (See at least figures 20-22, and column 13, lines 35-65, wherein default values are specified and changeable). However, Macrae et al. does not expressly disclose displaying a list of possible attribute values and selecting one of the possible attribute values from the displayed list as the selected attribute value.

Macrae et al. discloses a system that uses defaults and allows the user to modify the defaults to fit his/her needs. It was old and well known at the time of the invention to provide a user that is entering a value with acceptable ranges and example formats for the value to ensure the accuracy and usability of the entered information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to display a list of possible attribute

values for use in Macrae et al. when changing the default values of the system in order to increase the accuracy and usability of the values changed by providing examples of values that meet the requirements of the system.

61. Claims 54, 56, 70 and 82 recite equivalent limitations to claims 14, 16, 69, and 79, respectively, and are therefore rejected using the same art and rationale as applied in the rejection of claims 14, 16, 69, and 79, respectively.

Response to Arguments

62. Applicant's arguments with regards to the rejections based on Macrae et al. (U.S. 5,826,237) have been fully considered, but they are not persuasive. In the remarks, Applicant argues that Macrae et al. does not teach or suggest (1) that while workflow is created from the service plan, workflow exists in addition to the service plan, (2) updating a service plan with status information as the workflow progresses (claim 23 and 63), (3) structured sentence data items and generic workflow, which are separate and distinct from the service plan with structured sentences and workflow with workflow instances (claim 30), (4) "automatically updating a predetermined plurality of existing service plans" (claim 26), (5) a multidisciplinary team creating a service plan with structured sentences using a workflow to route the service plan (claims 69 and 70), and (6) unlike Macrae et al., the user of the claimed invention interacts with a familiar format of "structured sentences" which are essentially grammatically correct sentences to create the service plan.

Before addressing each argument individually, Examiner first notes that claims 26 and 40 are not independent claims, but were amended to be dependant on claim 1 in the 07/23/2004 communications. Second, Macrae et al. teaches that a service plan exists that contains structured

sentences for needed services and an electronic workflow exists that assists completion of service using the structured sentences to create workflow process instances. Macrae et al. teaches templates stored for needed services of a particular patient. For example, a particular patient with a sore throat would utilize the stored Strep? template (figure 19). Within this template are order nodes that are structured sentences for service, such as orders for vitals, strep tests, etc. These orders contain subjects (vitals) and attributes (temperature, pulse, etc.). An electronic workflow is later created by assigning a service plan to a patient and executing the plan to service the patient. The executing workflow and the service plan are stored separately in the system and thus are separate and distinct entities. Workflow process instances are the specific implementations of the structured sentences. For example, if the stored strep? plan was assigned to Jim Sanders, a workflow process instance would be vitals. See figures 14, 15, 19, and 33. Figure 19 is a service plan that is stored in the system and has the structured sentence order node vitals (see figure 14 and 15). Figure 33 represents an electronic workflow, wherein the plan has been assigned to Jim Sanders and is specifically executable. Figure 33 has specific implementations of the order nodes, now workflow instances. These nodes allow clinicians to view the order and enter results and allow other clinicians to view the status and results of the specific order.

In response to argument (1), the Examiner respectfully disagrees and asserts that Macrae et al. does disclose workflow existing in addition to the service plan, as explained above. Specifically, when the service plan is assigned to a patient, the service plan remains in the saved templates of the system and a specific instance of the workflow is stored in association with the patient for which it is executing.

In response to argument (2), Macrae et al. discloses that while a workflow is progressing, it may be discovered that a service plan needs to be updated. For example, while a pregnant woman has a workflow executing relating to a pregnancy service plan, she gets a sore throat midterm and needs other services. In a case such as this, secondary templates may be called and merged with the current template. This combined template would be saved as a service plan and currently executed with respect to the women. Other needed changes would be discovered during the execution of a workflow and the changes would be implemented and saved.

In response to argument (3), Examiner respectfully disagrees. A data item is a single unit of data or a portion of a data record, and Macrae et al. teaches a plurality of data items that are related to structured sentences being stored in the system, such as the orders shown in figure 12, 14, and 15. Figure 15 shows, for example, the order vitals that has a subject and at least one attribute, such as vitals (subject) and temperature (attribute) or temperature (subject) and quantity (attribute). A generic workflow specification is a detailed description of the flow of activities in the task from start to finish. Macrae et al. discloses a specification that describes the data records, programs, and procedures involved with a particular task. Macrae et al. also discloses templates, each template comprising a different set of certain ones of said plurality of structured sentence data items. For example, the first template of Macrae et al. is hip.pln and the second template is wrist.plan, as shown for example in figure 42 and 42A. Multiple templates are selected and together form a service plan that will be applied to a patient, such as John Sanders. When the service plan is executed, a workflow is created. This workflow is a specific instantiation of the service plan and is stored separately from the original templates that make up

the service plan. The selected structured sentence data items of the service plan cause the selection and implementation of workflow instances, including determining attribute values.

In response to argument (4), it is noted that the feature upon which applicant relies (i.e., automatically updating a predetermined plurality of existing service plans) is not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It appears that this limitation has been removed in the current amendment by which claim 26 has become dependent on claim 1. Therefore, Examiner maintains that Macrae et al. teaches the pending limitations of claim 26, as set forth above.

In response to argument (5), Examiner reminds applicant that claims 69 and 70 were rejected under 35 USC § 103. Examiner asserted that Macrae et al. disclosed an interdisciplinary team of clinicians that creates generic healthcare plans applicable to the patients and creating a plurality of structured sentences that represent steps of a generic healthcare plan template in at least column 1, lines 13-20, and column 7, lines 17-20, 29-37, and 53-65, but that Macrae et al. does not expressly disclose the interdisciplinary team creating the structured sentences. Examiner asserted that since it is old and well known that interdisciplinary teams of clinicians, etc. create the acceptable medical procedures that are used by the medical community, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the interdisciplinary team build the structured sentences. Examiner maintains this rejection.

In response to argument (6), it is noted that the features upon which applicant relies (i.e., grammatically correct sentences, familiar format) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Examiner points out that the claims do not expressly recite that structured sentences are essentially grammatically correct sentences or that structured sentences are a familiar format. Examiner suggests that if these features are essential to the invention, that they be clearly recited in the claims to receive patentable weight.

63. Applicant's arguments with regards to the § 103 rejections based on Macrae et al. (U.S. 5,826,237) and Brown (U.S. 6,161,095) have been fully considered, but they are not persuasive. In the remarks, Applicant argues that (7) the combination of the '237 and the '095 would not be attempted by one of ordinary skill in the art, and (8) alerts are grouped and the groupings used to determine the updating that needs to take place, as per claim 40.

In response to argument (7) of the Applicant, the Examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Macrae et al. and Brown disclose computer implemented patient care tools wherein data entered about the patient causes the workflow/medical plan to enact the appropriate workflow/medical plan instances. Furthermore, Macrae et al. discloses using its tool to medicate a patient during a treatment plan, as stated in column 14, lines 51-67, and column 15,

lines 1-5 and 19-22. Therefore, one of ordinary skill in the art at the time of the invention would have been motivated to attempt the combination of methodologies.

In response to argument (8) of the Applicant, Examiner respectfully disagrees and asserts that Brown specifically teaches obtaining dismissed alerts associated with existing service plans, the dismissed alerts being designated as one of an appropriate alert and an inappropriate alert in at least figures 2, 4, 5, and 10, and column 13, lines 1-11, 24-28, and 4-49, column 15, lines 10-15, and column 16, lines 28-39 and 40-50, which discuss obtaining information about dismissed alerts to take medication as prescribed, grouping related inappropriate alerts, and analyzing these groupings. Brown discusses determining revised generic workflow process specifications by editing the workflow and plan based on the missed alerts and doses.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clark et al. (U.S. 5,974,389) teaches a medical record system with workflow features.

Lancelot et al. (U.S. 6,434,531) discloses management of care plans using templates and patient care paths.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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bvd
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